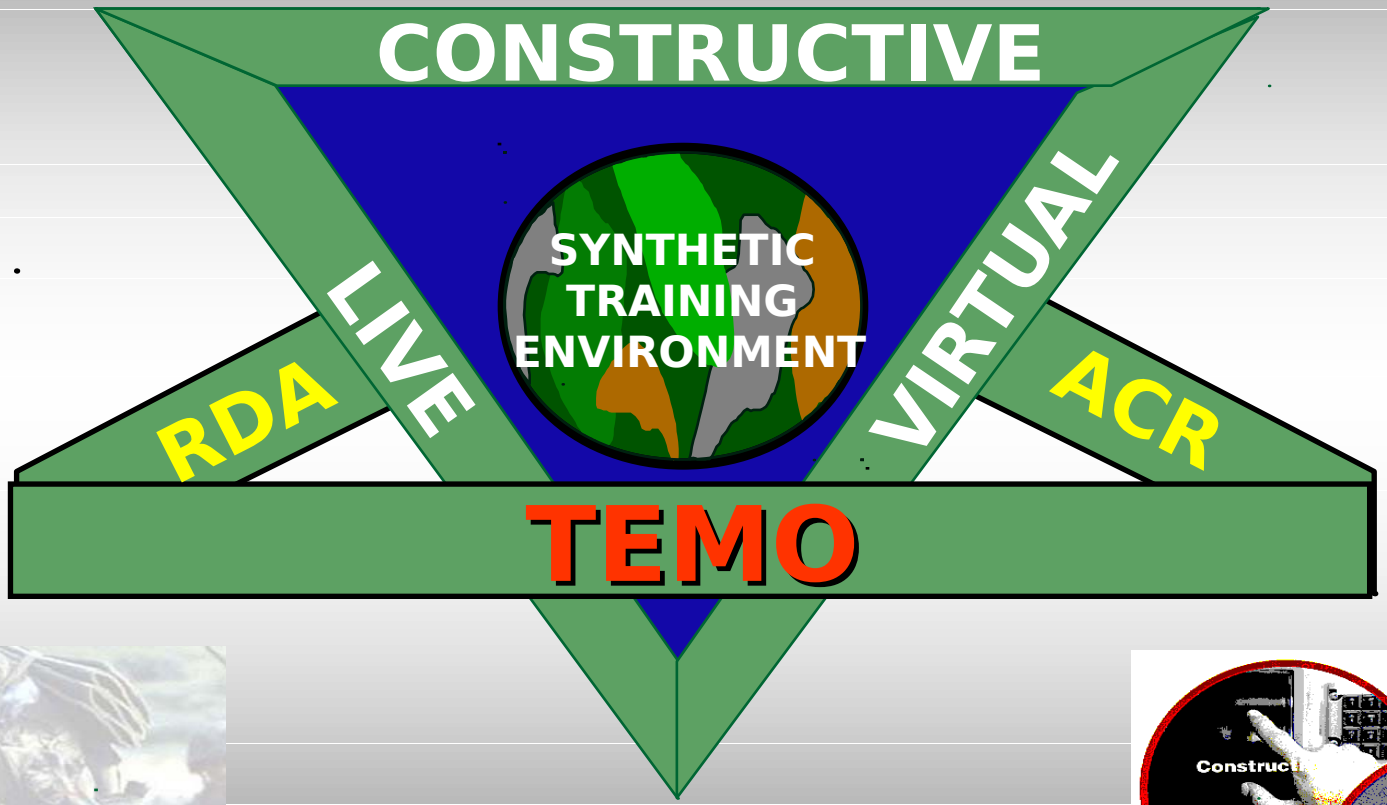
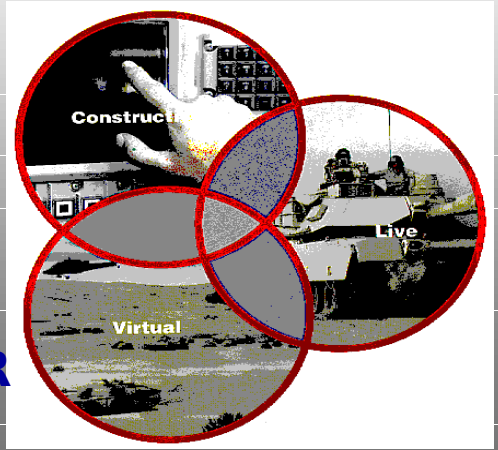
TEMO Domain Update
Army M&S Executive Council
6 November 2000



COL Wildemann
COMMANDER
NATIONAL SIMULATIONS CENTER



Training Challenge

Evolving Force Requirements

ymmetrical Environme
th Asymmetrical Thre
ll Spectrum Challenge

- Joint & Combined Ops
- SASO/Peacekeepi g
- High Intensity Conflict
- Major Theater War

FULL SPECTRUM

Responsive
Deployable
Agile
Versatile
Lethal
Survivable
Sustainable

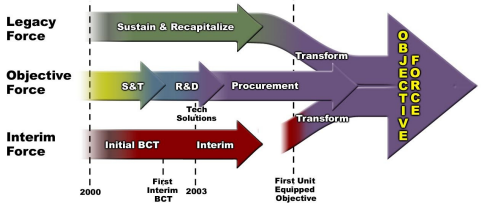
WARTIME MISSIO

METL

PREPARE
ASSESS FEEDBAC PLAN
EXECUTE

FM 25-100/10

The Army Transformation



. . . Responsive, Deployable, Agile, Versatile, Lethal, Survivable, Sustainable.

DOMINANCE

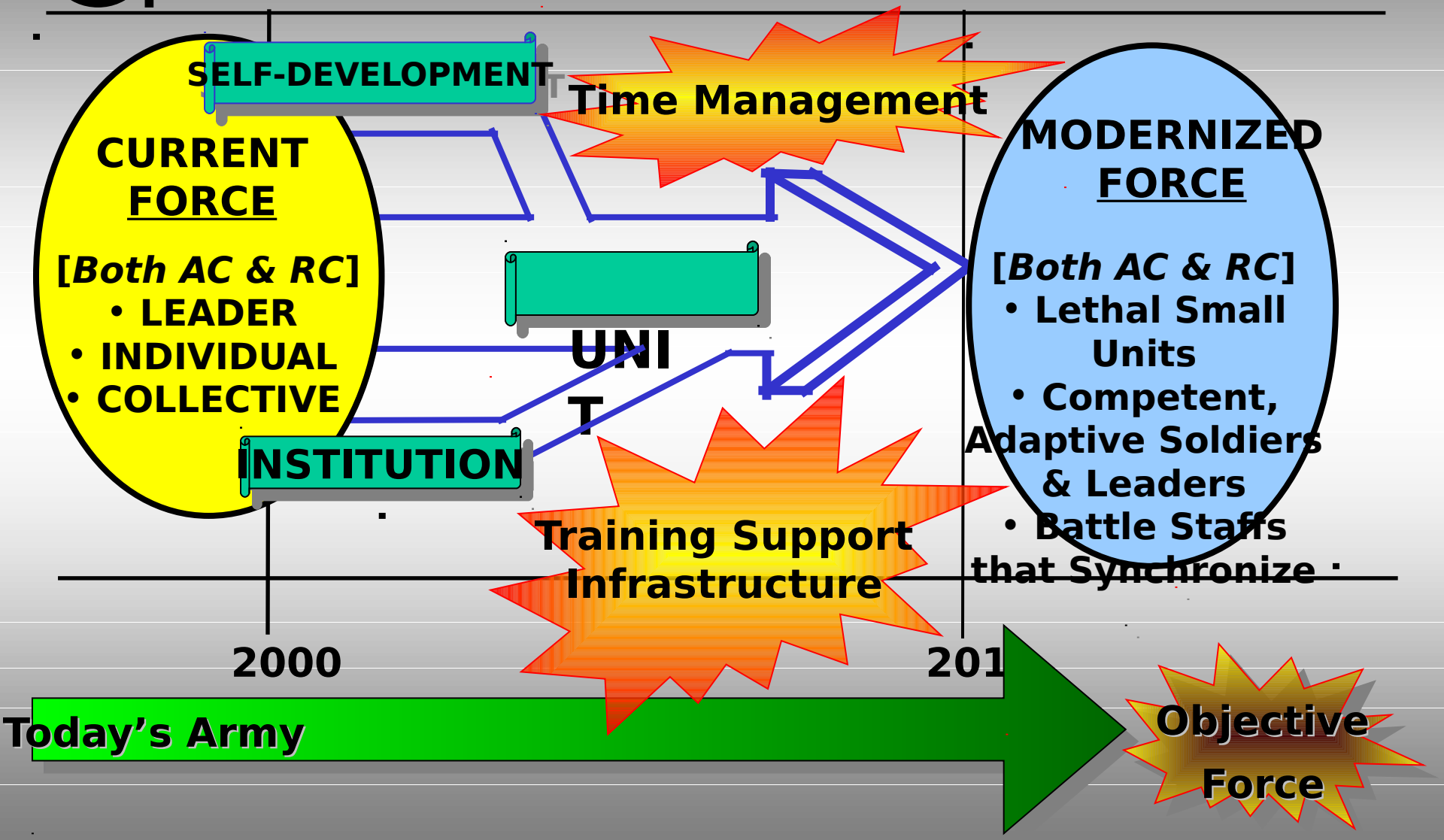
CSA Vision Speech

"Soldiers on point for the Nation transforming this, the most respected Army in the world, into a strategically responsive force that is dominant across the full spectrum of

Objective Force

- Lethal Small Units/Teams
- Adaptive Leaders & Soldiers

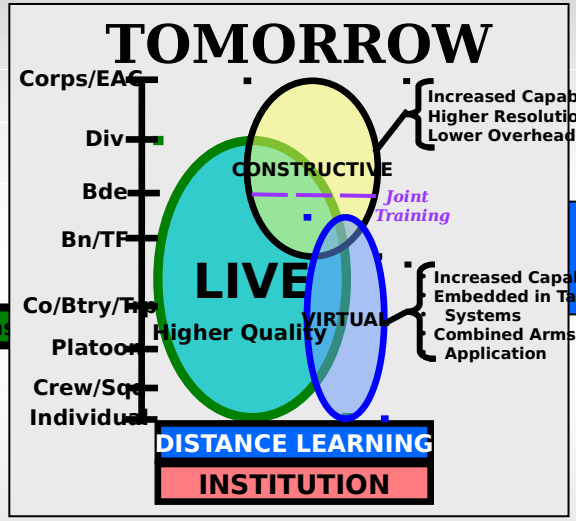
Army Training Strategy

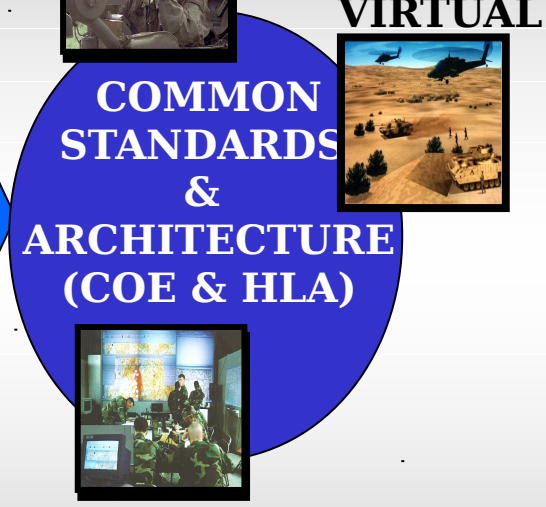


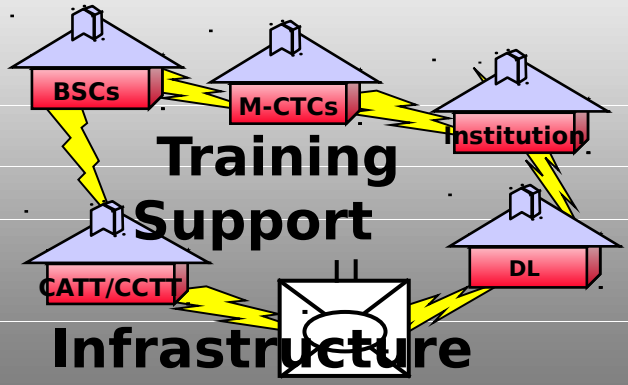
Implementation

Drives Requiremen

New Doctrine







LIVE FIRE / FORCE on FORCE

nthetic Training Environment (STE)

LIVE

VIRTUAL

COMMON
STANDARDS
&
ARCHITECTURE
(COE & HLA)

CONSTRUCTIVE

Synthetic Training Environment Vision

Integrate Live, Virtual & Constructive environments to train soldiers, leaders, units, & battle staffs via a holistic STE

Example of STE Integration/future use:

- **Joint Contingency Force - Advanced Warfighting Experiment (JCF-AWE) [*Sep 00*]**

Synthetic Training Environment (STE) Support to Joint Contingency Force (JCF) - Advanced Warfighting Experiment (AWE)

NSC-TEMO

BCTP-TEMO

TRAC-ACR

TRADOC-TEMO

FORSCOM TEMO

STRICOM RDA

AMC-RDA

OTC-RDA

EPG-RDA

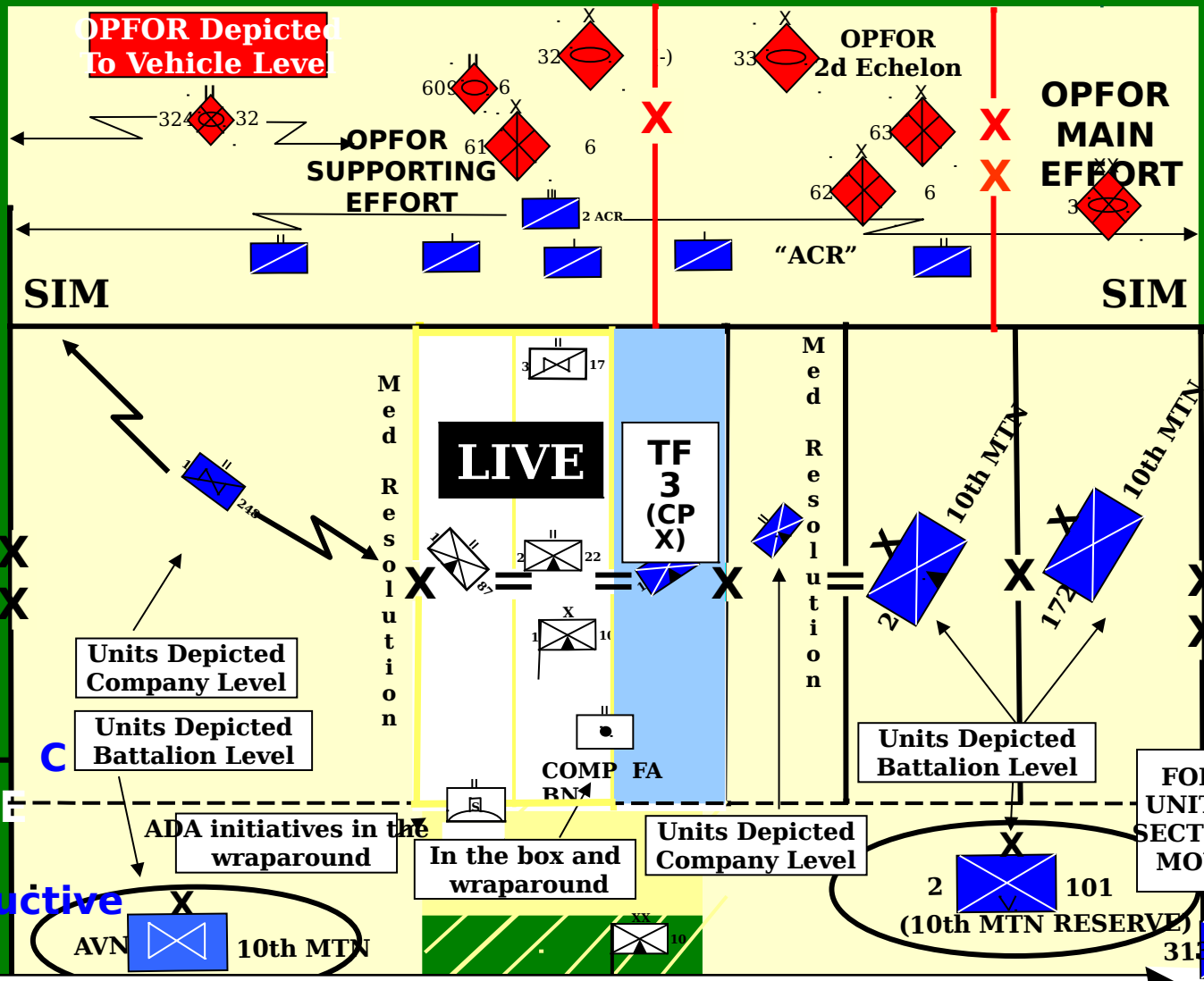
CECOM-RDA

AMC-RDA

TRADOC-ACR

TRADOC-ACR

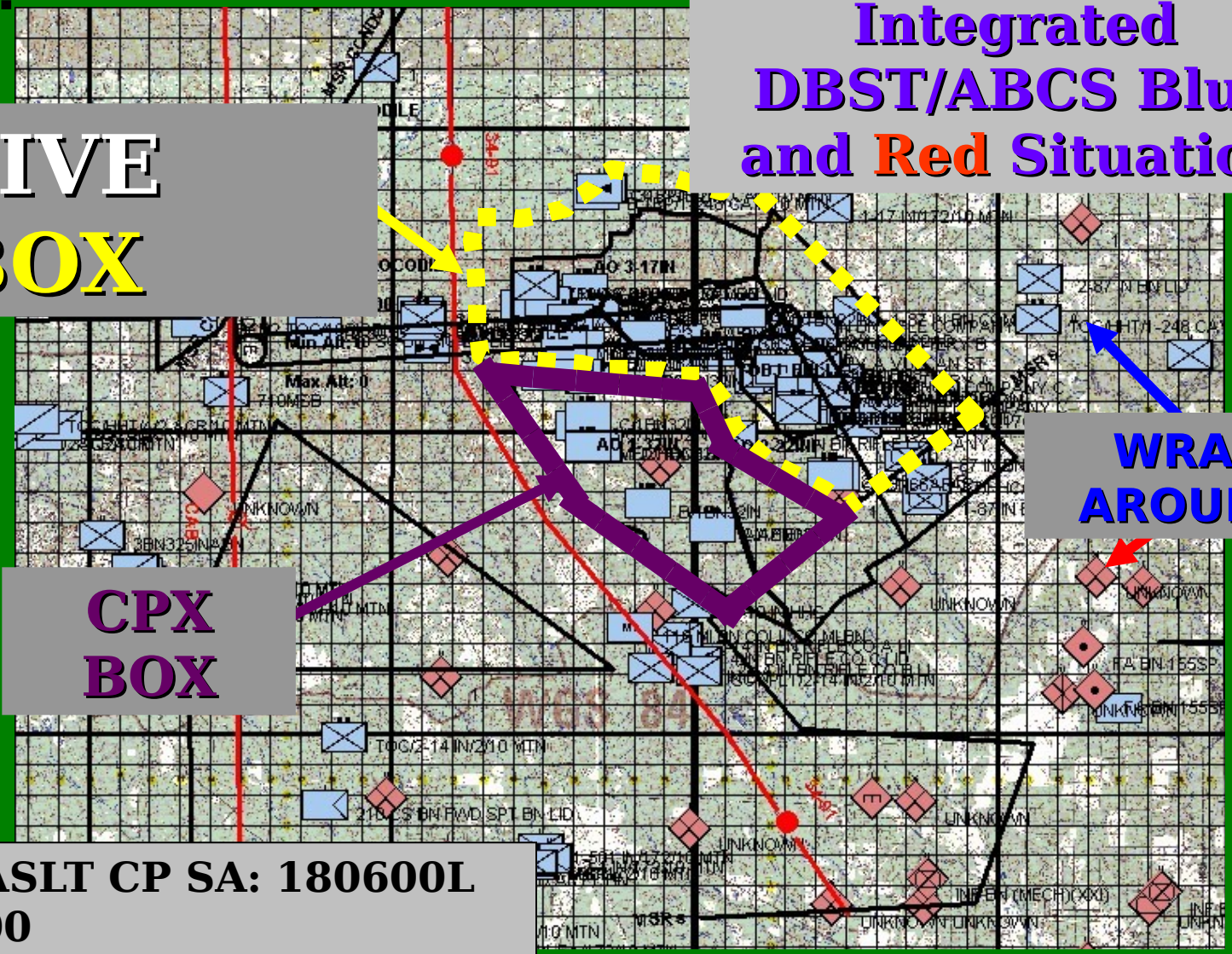
JCF-AWE STE
"Wrap Around" Concept



LEGEND:
STE = L - V - C
White = LIVE
UAV = Virtual
Blue = Constructive

Where's the Enemy? Where am I? Where are my Buddies?

JCF-AWE STE
Depiction as Viewed on ABCS



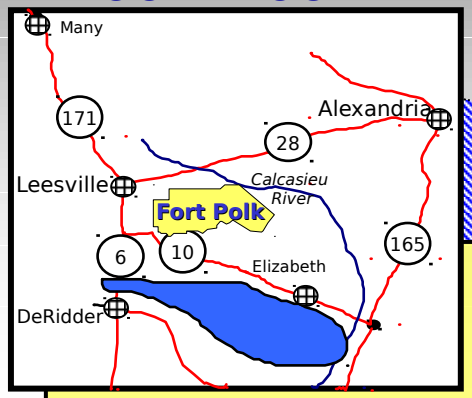
DIV ASLT CP SA: 180600L Sep 00

C4I AAR Snapshot (MCS)

Transition From STE to LIVE

Division Reconnaissance Fight 15 SEP (D+6) 1200Hrs to 2000Hrs

100 x 100 km Bo



LIVE BOX

1-32 AO

FTX AO

1 10th MTN

CPX AO

PL GREEN

FTX
5 BRDMs
2 V-150

CPX
4 BRDMs
2 V-150s

Live
SIM
Live
SIM
SIM
SIM
SIM

1 248
1 2
E 2/2
F 2/2
G 2/2
H 2/2
How
4 2

PL BLACK
PL TAN

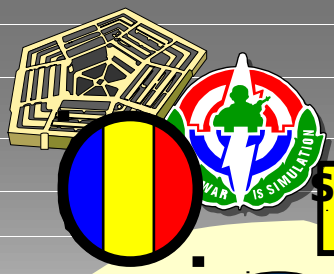
4. • Wraparound vehicles deleted at approx 1900 hrs.
• Live & constructive units continue movement towards PL GREEN.

3. • Division Recon advances to edge of Military Reservation at 1830hrs.

2. • Division Recon "fights through" the 2ACR.
• Movement synched with JRTC 2ACR Spot Report Log. Unit loses 7 BRDMs.

1. • Division Recon begins fight against 2 ACR with 16 BRDMs and 4 V-150s

JCF-AWE STE Digital Environment



Simulation TF3 Bldg

Field TOC Locations

Simulation

Tactical

Janus 7.06dj Maneuver

FIRESIM XXI Fires

EADSIM

VISION XXI (Sim-AAR)

STORM

DBST

TS (ABCS Interface)

PIU (AFATDS Interface)

DAUVS

RPWS

VRSG UAV

DIS Xlator

E, LAN

2 - Wire

EPLRS

Packet Radios

TOC SERVER

MCS

CSCSS

CGS

AMDWS

AFATDS

FBCB2/ EBC

ASAS

TCSS

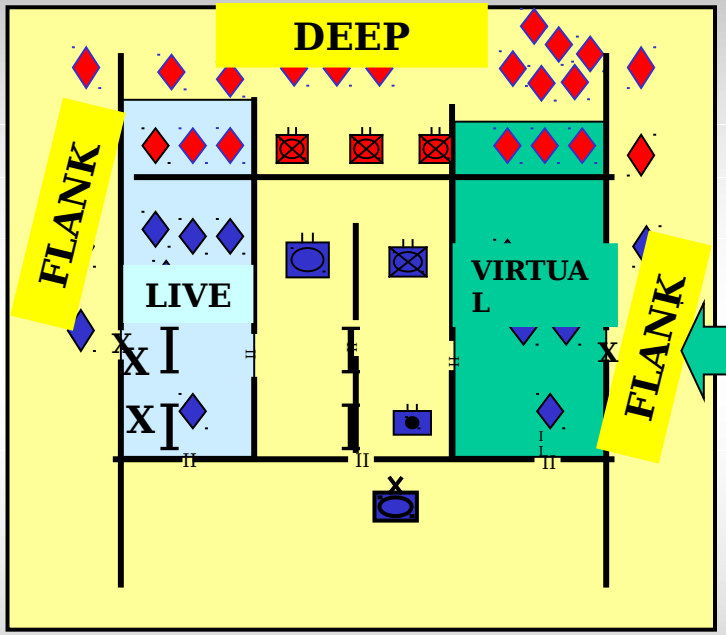
TOC LAN

C4I AAR

TC Instrumentation System

Integrated Digital Training/Testing Environment

Seamless Battlespace



Common Tactical Picture

FBCB2 ATCCS
ABCS
GCCS-A

Tactical Comms

Single Source Input Devic
- UAV
- JSTARS
- Others

Common Simulation Architecture

Future Models
AAR & Data Collection
Current Models
Interfaces
DBST Core
Plug 'n Play Components

Experimental Forces

Live (Instrumented) Forces

Virtual (Simulated) Forces

Tailored to Specific Training or Testing Requirement

Commander Sees ONE Fight

Defined Standards:
- IEEE (DIS & HLA)
- SIMCI

L-V-C STE Conclusions

STE Wrap Around Concept Works (Cross-Domain Into

- **SMART Concept in action**
  - **Composable battlespace environment**
  - **Analytical, Training, and Testing Models**
  - **Serves relevant training/testing needs**
    - **FBCB2**
    - **CTSF**
    - **IAV IOTE((T))**
- **Use case for WARSIM / OneSAF**
- **Synergy across the M&S domains**

•STE "The Way Ahead"

- **Continue to operate IAW SMART concept:**
  - **SIMCI OIPT**
  - **Army Test & Training Instrumentation**
  - **Life Cycle Simulation/C4I integrati**

Reduced Life Cycle Cos
Reduced Development T
Concurrent fielding

- **Interoperable Live, Virtual, & Constructive training capability required now at "Dirt" Combat Training Centers CTCs)**

- **STE Vision for Homestation Proof of Concept scheduled for February 2002 (USFK Test Bed)**

- **Continue to support TEMO efforts to provide a STE capability throughout the Army**